Epi Notes

North Carolina Department of Health and Human Services ◆ Division of Public Health

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In This Issue:

Kirkpatrick Heads New Bioterrorism Branch

Prepared by Angela Green, Office Assistant, Epidemiology Section

On. Sept. 3, James W. Kirkpatrick, MD, MPH began his new job as State Bioterroism Coordinator and Branch Head of the newly formed Office of Public Health Preparedness and Response in the Bioterrorism Branch of the Epidemiology Section.

Dr. Kirkpatrick formerly served as Chief Academic Officer, Dean/Commandant of the U.S. Army Academy of Health Sciences. This institution trains and educates all reserve and international military healthcare personnel of all DoD branches and allied countries to ensure optimal health and readiness of America's military forces and its coalition partners in all medical aspects, and particularly in bioterrorism response.

Dr. Kirkpatrick received his Bachelor of Science degree from Texas Tech University and graduated from the University of Texas Southwestern Medical School. He completed his internship at Fort Lewis, Washington, and his residency at Walter Reed Army Institute of Research. After receiving a master's degree in Public Health from Tulane University, he went on to graduate from the Armed Forces Staff College and the Army War College. Kirkpatrick is board certified in Preventive Medicine.

Dr. Kirkpatrick has had a 30-year distinguished career as a U.S. Army physician, serving our country in many capacities. North Carolina is very fortunate to have recruited Dr. Kirkpatrick as our first branch head in the Office of Public Health Preparedness and Response.

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New Research Confirms Once-a-Week Regimen Effectively Cures Tuberculosis in Select Patients

Prepared by Carol Dukes Hamilton, M.D., N.C. TB Medical Director, General Communicable Disease Control Branch

The Tuberculosis Trials Consortium (TBTC) confirms that a once-weekly TB regimen, initiated after the first eight weeks of therapy, is a viable option for selected patients being treated for active TB disease. Supported by the Centers for Disease Control and Prevention, TBTC is a network of 23 clinical research facilities, including the Duke University Medical Center and Durham Veterans Affairs Medical Center (DVAMC) in Durham, N.C.

In this TBTC study, published in the August 17, 2002 edition of *The Lancet*, investigators evaluated a regimen of once-weekly isoniazid and rifapentine given during the continuation phase of therapy (from the ninth to twenty-fourth week of treatment), as an alternative to the standard twice-weekly regimen of isoniazid and rifampin in a group of HIV-negative TB patients. TBTC researchers, including Carol Dukes Hamilton, M.D., assistant professor of medicine at Duke University and medical director for the North Carolina TB Control Program, found the once-weekly regimen to be safe and effective for HIV-negative patients without signs of advanced tuberculosis (i.e., those with no lung cavities identifiable on chest x-ray).

To identify those patients in whom a weekly therapy would be possible, more than 1,000 HIV-negative patients with active TB disease completed eight weeks of intensive TB therapy with the four frontline TB drugs – isoniazid, rifampin, pyrazinamide and ethambutol – before being randomly assigned to one of two groups during the 16-week continuation phase of TB treatment. One trial group received isoniazid and rifapentine (the first new TB-specific drug approved by the Food and Drug Administration in 30 years) once a week. The other group received the standard therapy of twice-weekly isoniazid and rifampin.

Both groups of patients were then followed for two years. Nine percent (46 patients) of those who took the once-a-week regimen either relapsed or experienced treatment failure. Six percent of those who took the twice-weekly regimen (28 patients) relapsed or had a treatment failure.

Overall, the relapse rate in the once-weekly arm was slightly higher. However, when researchers reviewed data on those patients without lung cavities, they found that the relapse rates were comparable (about three percent in both treatment arms). Therefore, researchers were able to identify a group of HIV-negative patients in whom the once-a-week therapy would be as successful as other currently approved treatment regimens.

Since the once-weekly isoniazid and rifapentine regimen is administered less frequently than the standard regimen, adherence may be improved, helping to cure more HIV-negative TB patients and prevent further TB transmission. The once-weekly regimen is not recommended for HIV-infected TB patients. The findings will be incorporated into the new TB treatment guidelines, expected out in November 2002, and in the North Carolina TB Control Manual.

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Vibrio vulnificus in North Carolina

Prepared by Jeffrey Engel, MD, Head, General Communicable Disease Control Branch and Thomas Morris, MD, MPH, Medical Epidemiologist, Harmful Algal Blooms Preogram, Occupational & Environmental Epidemiology Branch

North Carolina is a coastal state. There are beautiful beaches to visit and a bountiful fresh seafood industry for dining. But no activity is without risk, and working or playing in the coastal waters, or eating raw or undercooked seafood, particularly shellfish, are not without their unique hazards. Like other coastal states, North Carolina has *Vibrio vulnificus* in and around the water, be it in the brackish estuaries or the ocean.

Vibrio vulnificus is a halophilic (salt-thriving) gram-negative bacteria. It is a member of the Vibrio genus, of which *V. cholerae* (the causative agent of cholera) is a world-wide scourge in the developing world, and the more common *V. parahaemolyticus* is another cause of food-borne diarrhea. *V. vulnificus* is considered the most virulent of the non-cholera vibrios because it is an invasive pathogen and often has a rapidly fatal course. Unlike the other vibrio species, *V. vulnificus* has not been implicated in outbreaks but

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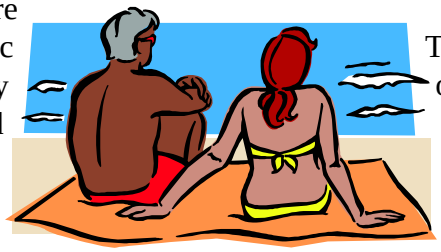
*(**Vibrio vulnificus in N.C.** continued from page 2)*

identified only in sporadic cases. All vibrio infections identified in North Carolina are reportable to the N.C. Division of Public Health's General Communicable Disease Control Branch (919-733-3419).

Ecology. *V. vulnificus* is considered ubiquitous to temperate waters of varying salinity. It is not found in fresh water, not associated with sewage spills, and not a manifestation of eutrophication (overgrowth from oversupply of nutrients from pollution). There is no mammalian reservoir; however, it can become the normal flora of filter-feeding shellfish such as oysters, clams, mussels, and crustacea, including crabs. Since the organism thrives best in warmer waters, most cases are seen in the warmer months, between May and October. Cultures for *V. vulnificus* from the environment (water) and shellfish (food) demonstrate a heterogeneous (or genetically diverse) population of this bacterium from any source, however very few members in this group are capable of causing human infection. Thus, finding and culturing *V. vulnificus* from water or oysters does indicate whether it is a strain that is capable of causing disease. This may explain, in part, why so few human infections are reported (<5 cases per year in N.C.) despite the amount of contact with salty or brackish water by the working and recreational public in North Carolina and people's consumption of seafood.

Exposure and risks to the Public. There are primarily two portals of entry of pathogenic *V. vulnificus*: ingestion of the organism by eating raw or undercooked seafood (and more rarely, food contaminated by seawater), or by direct contact with estuarine or sea water. Ingestion is the more common risk seen in fatal cases, a patient having eaten tainted seafood within 7 days of presentation. Severity of disease is dependent on both the amount of shellfish consumed, and on host factors such as the presence of chronic liver disease or another immune-compromising condition. The less common exposure is from direct contact of seawater on an open skin wound while working or playing near water, which can lead to a severe, rapidly progressing skin and soft-tissue infection known as necrotizing cellulitis.



Host risk factors and clinical disease. The following case was seen during the summertime at Pitt County Memorial Hospital (PCMH) in Greenville, N.C. The patient was a 53 year-old man from Jacksonville, N.C., transferred to PCMH from Onslow Memorial Hospital (OMH) in septic shock. He was well until 12 hours earlier, when he developed rapid onset of fever, chills and confusion. Upon arrival to OMH, he was in coma and needed life support. A diffuse red macular rash was noted, with the development of blisters in some areas. Antibiotics were started and he was transferred by helicopter to the PCMH medical intensive care unit. At PCMH, the rash progressed to form large, confluent hemorrhagic blisters. Despite aggressive life-support, the patient died 24 hours after presentation to OMH. Blood cultures and cultures of the blisters were positive for *V. vulnificus*. Later, it was learned that the patient was an alcoholic and had liver cirrhosis. On the day before his illness, he had consumed over two dozen raw oysters at a family reunion.

This dramatic case is illustrative of the disease seen in Eastern North Carolina about twice a year. The risk factor for severe illness is usually chronic liver disease, as the liver is responsible for filtering and destroying bacteria that enter the bloodstream through the intestines. Other risk factors for septicemic vibrio include immune-compromising conditions such as AIDS, malignancy, and the long-term administration of immunomodulating drugs. While both normal and high-risk people are susceptible to necrotizing cellulitis from skin inoculation of vibrio, the high-risk patient is at much higher risk of developing septicemia.

Treatment of the septicemic patient consists of intensive care and the rapid administration of appropriate antibiotics. Early consideration of disease is paramount, since routine antibiotics used to treat sepsis and cellulitis may not be active against *V. vulnificus*. A tetracycline (e.g., doxycycline) is the first-choice agent, with a broad-spectrum cephalosporin (e.g., cefotaxime) and ciprofloxacin as alternatives. Even with proper medical care, the case-fatality rate of septicemic vibrio remains at 33 to 50 percent. Patients presenting in septic shock, such as the case reported here, have a mortality rate of over 90 percent. Cellulitis and deep soft-tissue infections may require surgical drainage in addition to antibiotics.

Diagnostic and microbiologic considerations. Infections from *V. vulnificus* should be considered in any person with a recent history of shellfish consumption (severe gastrointestinal illness or septicemia) and/or exposures to

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North Carolina Initiates its Ryan White Title II Comprehensive Planning Process

Prepared by John Peebles, Program Coordinator, HIV/STD Prevention & Care Branch

In July 2002, the AIDS Care Unit of North Carolina's HIV/STD Prevention and Care Branch initiated a comprehensive planning process. The N.C. plan will build on the foundation already laid by the Strategic Planning Process completed in spring 2001 and the Statewide Coordinated Statement of Need process completed in fall 2001. Development of the Comprehensive Plan is a new Health Resources and Services Administration (HRSA) requirement. The Plan is intended to accompany the state's annual application to HRSA for Title II funding and will be updated every 3 years. HRSA's definition of the Comprehensive HIV/AIDS Care Plan is that it is "a road map for the incremental development of a system of care over the longer term." Even though the Comprehensive Plan is a HRSA requirement, it is proving to be a useful process and product to guide HIV/AIDS care planning throughout North Carolina. It is therefore viewed as an opportunity rather than as a requirement.

In July and August 2002, two meetings were held with 35 key stakeholders. This group included representatives from community-based organizations (CBOs), HIV care consortia, other Ryan White funded projects and other state agencies with an interest in HIV issues. Representatives of HIV prevention projects also attended. The group reviewed the HRSA requirements and developed an action plan to address the critical issues.

HRSA specifies that two important foci be included in the Comprehensive Plan. The Plan should: (1) address disparities in HIV care, access, and services among affected subpopulations and historically *underserved* communities, and (2) address the needs of those who know their HIV status and are *not in care* as well as the needs of those *currently in the care system.*

The group carefully considered the HRSA requirements and the elements of the North Carolina Strategic Plan and developed the following list of critical issues for the Comprehensive Plan:

- Provision of high quality health and support service for all PLWHA (Persons Living With HIV/AIDS);
- Identification of PLWHA who know their status but are not in care in order to increase their knowledge and utilization of these services;
- Improved coordination and integration of care and related support services and activities between and among Ryan White (RW) funded agencies and organizations;
- Elimination of disparities in access to and utilization of services for historically underserved populations and rural communities;
- Assurance that PLWHA are active, consistent and meaningful participants in the planning, decision making, operation and evaluation of the agencies providing those services and conducting those activities;
- Assured accountability for the acceptance of public responsibility and expenditure of public funds (includes fiscal accountability, monitoring, and communication);
- Coordination of HIV care services with HIV prevention programs, including outreach and early intervention services;
- Coordination of HIV care services with mental health services and substance abuse prevention and treatment programs.

After using a modified consensus model of decision making, the group then developed strategies and associated action plans to respond to each of the eight critical issues. This process resulted in a clear "street map" of how to proceed, with timelines and clear delineation of responsible parties for each action plan. By reducing this complex planning process to a series of well-defined, achievable actions, the working group has ensured the validity and timeliness of North Carolina's planning process.

The community will have an opportunity to comment on the Comprehensive Plan at a series of public hearings to be held around the state in November and December 2002. The final Comprehensive Plan will then be submitted with North Carolina's Ryan White Title II application in February 2003.

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(***Vibrio vulnificus in N.C.*** *continued from page 3)*
warm salt or brackish water (rapid necrotizing cellulitis with or without septicemia). Isolation of *V. vulnificus* from blood, stool or wound is diagnostic. The clinical laboratory should be alerted to look specifically for vibrio species because they can be easily overlooked on standard media but can be identified quickly on special media. Bacterial isolates should be saved for study, as the University of North Carolina at Charlotte is currently doing research on *Vibrio vulnificus*.

Mitigation and Prevention. Several federal and state control measures are aimed at prevention of human illness from consumption of seafood. The federal Interstate Shellfish Shippers Conference has a national education program targeted to *V. vulnificus* infections. At the state level, two important legal interventions have vastly improved seafood safety. First, summer harvesting of shellfish is banned in N.C. This is the reason why the Gulf states, where such a ban does not exist, experience the vast majority of *V. vulnificus* human illness in the United States. Second, the N.C. Administrative Code requires seafood restaurants to post a sign warning customers not to eat raw seafood if they have the underlying health problems noted above. Further, seafood markets must place a similar warning tag on the holding nets carrying raw shellfish.

According to Wayne Mobley, assistant section chief of Shellfish Sanitation (in the Division of Environmental Health of DENR based in Morehead City), an extensive education program exists aimed at both consumers and area physicians, since it is equally important that persons at risk avoid raw seafood consumption and that the local medical community recognizes vibrio infections early. Antibiotic therapy with a tetracycline (a drug not normally used in sepsis or necrotizing cellulitis) may be life-saving.

Once a human case is reported, staff in Public Health and DENR attempt to find the source of infection. This involves determining the mode of infection (gastrointestinal or cutaneous) and tracing back to the seafood vendor source if the case was foodborne. Since human illness in N.C. is sporadic, tracebacks rarely result in food recalls. *V. vulnificus* is not a contagious disease that is spread person-to-person; thus there are no isolation requirements.

As with many public health threats, a main prevention strategy for human illness is education. The messages are:

- Food preparation: Raw or undercooked shellfish should be avoided if a host-risk factor is present. Freezing uncooked seafood does not kill the bacteria; chilling raw 'oysters-on-the-half-shell' on ice does not reduce the risk. Only thorough steaming kills vibrio.
- Minimize exposure of skin wounds to warm seawater and apply proper first aid if an injury occurs in salty water.
- Physicians and other primary care providers should understand the risk factors for serious vibrio disease, suspect septicemia and/or cellulitis immediately in the proper clinical setting, and prescribe appropriate first-line antibiotics.

Information and websites:
Health risk and prevention information can be obtained by calling the N.C. Division of Public Health General Communicable Disease Control Branch at (919) 733-3419, the Harmful Algal Blooms Hotline at (888) 823-8915 or Shellfish Sanitation at (252) 726-6827. Information is also available on-line:

N.C. Division of Public Health:
www.epi.state.nc.us/epi/hab/vibrio.html
US Food and Drug Administration:
www.cfsan.fda.gov/~mow/chap10.html
Centers for Disease Control & Prevention:
www.cdc.gov/ncidod/dbmd/diseaseinfo/vibriovulnificus_g.htm

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The North Carolina Pocket Reference Guide For Clinical Evaluation and Treatment of Clients With Sexually Transmitted Infections

Prepared by Peter R. Moore, Senior Public Health Advisor, HIV/STD Prevention and Control Branch

The North Carolina HIV/STD Prevention and Care Branch has published a pocket reference guide for STD clinicians and began dissemination of the guide to clinicians in July. The guide was developed by Branch staff to supplement the more comprehensive North Carolina STD Protocol Manual and is designed so that providers can easily carry a copy in a lab coat pocket for ready reference. A handy mini-manual for conducting appropriate male and female STD exams, the new publication includes procedures for the STD physical exam, specimen collection, supplies needed for exams, and 2002 CDC STD treatment guidelines. The target audience is clinicians who provide STD care under standing orders, but it can also be used by others who provide STD assessments of clients.

The pocket guide resulted from a Branch assessment of STD clinician training resources that indicated a need for STD exam guidance. To develop a method to provide clinicians with the necessary information, staff from from different program areas held a series of meetings. Working together on the project were the DHHS Women's Health Branch, Breast and Cervical Cancer Control Program, Health Promotion Branch, N.C. State Laboratory of Public Health and HIV/STD Prevention and Care Branch, as well as the UNC-CH School of Public Health.

This guide is being distributed to approximately 4,000 clinicians across North Carolina, including local health department clinical staff, clinicians in community-based organizations (CBOs) that serve high-risk patients, and private medical doctors.

Since an article on this guide in CDC's Thursday STD report, the Branch has received several requests from STD program managers across the United States for samples of the pocket guide. The Branch has been sending sample copies to all those sites, with recommendations that they reproduce similar guides in their respective states. For more information, please contact Pete Moore at (919) 733-9585.

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The Public Health Implications of Drought Conditions

Prepared by Thomas Morris, MD, MPH, Occupational and Environmental Epidemiology, Harmful Algal Blooms Program

North Carolina is now into the fourth year of an ongoing drought. In spite of some rainfall, the surface waters of the state are down appreciably. Drought is considered a natural disaster, but unlike the more acute events such as earthquake, tornadoes, hurricanes and flooding (such as Floyd in September, 1999), drought is more insidious because it uses neither force nor excess of elements, but the lack thereof over time.

Drought can create public safety concerns. It may create conditions conducive to natural (wild) fires while reducing water available for firefighting. In developing countries with a less robust agriculture, a poor distribution system and a weak economy, drought can mean crop failure from which famine, malnutrition and starvation can occur. For a developed nation, drought can have profound economic consequences and occasional societal implications, such as the migration of people in the 1930s from the Dust Bowl in the Midwest.

In terms of public health, drought does not result in a disaster response involving rapid mobilization of resources as seen in recent hurricane events. Nor does it pose a direct and immediate threat to public health in terms of breakdown of infrastructure, loss of access or displacement. The direct threat of drought is its effect on the supply of usable water, particularly potable water and water for sanitation uses.

A prolonged rainfall shortage can affect water sources, particularly surface water. This, in turn. creates a stress on water treatment plants. The amounts of contaminants contained in discharges into surface water – metal ions, industrial materials, and toxic substances such as cyanotoxins (byproducts of blue-green algae) – usually remain constant; however, as the quantity of water decreases, the concentrations of such materials can rise to potentially harmful levels downstream, and can affect both drinking water and recreational water. Fecal coliform counts (an indicator for sewage in a water system) may also go up as the amount of water in water systems goes down; however,

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(***Implications of Drought Conditions*** *continued from page 6)*

coliform counts often spike after a rainfall event rather than during drought.

In the United States, drought is not usually the direct cause of morbidity or mortality, unlike another weather event such as a heat wave or hurricane. However, there are indirect effects. Drought can create conditions for wildfires and forest fires which, in turn, can compromise air quality downwind and affect people with respiratory problems, as happened during the 1998 Florida fires. Drought can create conditions in water management conducive to sewage contamination of drinking water sources. For example, backflow between drain systems and potable water supplies due to falling water pressures may be a problem in homes and buildings with obsolete or poorly maintained plumbing. Stagnation can occur in surface water supplies, increasing the likelihood of algal blooms which can compromise water quality.

Drought can create conditions for increased infectious disease, both during and immediately after the drought. Water stagnation during a drought can aggravate mosquito populations, thus increasing the risk of mosquito-borne diseases, and rainfall events after a drought usually result in an increase in disease vectors, particularly mosquitoes. As natural water supplies diminish, encroachment by wildlife into developed habitats can lead to crowding of potential animal hosts and arthropod vectors, which in turn can amplify some vector-borne viral diseases such as St. Louis Encephalitis (SLE) virus. In dry conditions, people are also more likely to be out-of-doors, increasing their chances of encounters with vectors, including ticks.

Dry conditions coupled with wind can spread certain endemic fungi. An epidemic in California during the late 1970s of coccidioides, a pathogenic fungi endemic to the American Southwest, was thought to be related to rains followed by a prolonged dry spell. However, histoplasma and blastomycetes, two types of fungi endemic to North Carolina, have not yet been shown to increase in times of drought. Interestingly, after the emerging disease Sin Nombre virus (hantavirus) was described in the American Southwest in 1993, it was hypothesized that there was a sharp increase in the deer-footed mouse population after a prolonged drought, resulting in increased human contact with rodent excrement and thus the virus itself.

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Patricia Funderburk Ware Meets with N.C. HIV Clinical/ Medications Advisory Committee

Prepared by Steve Sherman, Aids Policy/Advisory Coordinator, HIV/STD Prevention and Care Branch

Patricia Funderburk Ware, executive director of the Presidential Advisory Council on HIV/AIDS in the George W. Bush Administration, came to Raleigh on August 8 and 9 to meet with the N.C. AIDS Advisory Council and the N.C. HIV Clinical/ Medications Advisory Committee. The primary focus of her visit was a discussion about federal funding, particularly in relation to the state's AIDS Drug Assistance Program (ADAP), which has been closed to new enrollees since December 15, 2001.

On Thursday evening, Ms. Ware participated in a "Talk with the Leaders" session with invited members of N.C.'s HIV/AIDS community. Also present at the event were DHHS Secretary Carmen Hooker Odom and Pastor Ed White, Chairman of the N.C. AIDS Advisory Council, along with Dr. Steve Cline, chief of the Epidemiology Section; Evelyn Foust, head of the HIV/STD Prevention and Care Branch; and Barbara Pullen-Smith, executive director of the Office of Minority Health and Health Disparities, all within the N.C. Division of Public Health. About 100 members of the HIV community participated in the Thursday evening get-together, which was held at the N.C. Museum of Natural Sciences. The event was supported jointly by Glaxo SmithKline, Abbott, and Agouron pharmaceutical manufacturers.

On Friday, Ms. Ware met with the two statewide Advisory Committees at their regular meetings at the McKimmon Center in Raleigh. The focus was again federal funding and ADAP. And although there does not appear to be any "quick and easy" fix to the funding shortfall, a positive dialogue was established between Ms. Ware and the North Carolina community. It was generally agreed that the funding methodology currently used to distribute Ryan White AIDS Care funds does not adequately support North Carolina and other southeastern states, where the epidemic is most rapidly growing. Ms. Ware encouraged members of the committees and the community as a whole to make sure

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Southern States Summit on HIV/AIDS and STDs

Prepared by Judy Owen-O'Dowd, Program Manager
HIV/STD Prevention and Care Branch

A Southern States Summit on HIV/AIDS and STDs is being sponsored this fall by the Kaiser Family Foundation, national Centers for Disease Control and Prevention (CDC), and the National Alliance of State and Territorial AIDS Directors (NASTAD). The meeting will be held **November 13 - 15, 2002** at the Sheraton Charlotte Airport Hotel in Charlotte, North Carolina.

States in the South face unique and critical challenges in responding to the country's HIV/AIDS and STD epidemics. Many Southern states are consistently among the top ten states having high annual case rates of AIDS, syphilis, chlamydia and gonorrhea.

The Southern states' AIDS directors have collaborated to educate national partners, policy makers and African-American community leaders on the South's HIV/AIDS and STD crisis and the need for an urgent call to action. The upcoming Summit will provide an opportunity to examine the South's unique barriers to providing HIV and STD prevention and care services, current state and federal resource inadequacies, and successful efforts to promote awareness and mobilize communities of color.

For more information, please call Evelyn Foust at (919) 733-9490.

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*(**Patricia Funderburk Ware Visit,** continued from page 7)*
that the state's story was heard in Washington, and she committed to helping to make that happen.
Prior to her present appointment as executive director of the Presidential Advisory Council on HIV/AIDS, Patricia Funderburk Ware was president and CEO of Preserving Family Well-being Foundation, a national, non-profit organization that focuses on issues of the African American family. She served as director of educational services for Americans for a Sound AIDS/HIV Policy and director of the Office of Adolescent Pregnancy Programs at the U.S. Department of Health and Human Services during the first Bush Administration. She is recognized in the U.S. and internationally in the fields of teen sexuality, HIV/AIDS and family preservation. She is a native of Wilson, N.C.

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Highlight on Emerging Infectious Diseases Laboratory Fellowship Program

Prepared by Leslie Wolf, Public Health Scientist
State Laboratory of Public Health

The Emerging Infectious Disease (EID) Laboratory Fellowship Program, sponsored by the Association of Public Health Laboratories and Centers for Disease Control and Prevention, was initiated in 1995 to strengthen the U.S. public health infrastructure through training programs. This two-track program (one year for bachelor's and master's levels and two years for the post-doctoral level) provides laboratory training in state and federal public health laboratories. Fellows gain hands-on experience in a variety of diagnostic tests and research methods to address emerging diseases and other issues of public health importance. In addition, the fellows are encouraged to participate in outbreak investigations and attend at least one national scientific meeting during their tenure. The laboratory and the fellow benefit tremendously from this partnership.

The North Carolina State Laboratory of Public Health is fortunate to have hosted three EID fellows in the past: Edie Alfano, MPH, PhD (1996-97); Leslie Wolf, PhD (1997-1999); and Virginia Wood, MS (2000-01). This September, the laboratory welcomed its fourth EID fellow, William Glover III. William received two B.S. degrees from the University of Iowa in May of 1999, with one degree in Microbiology and the other in Clinical Laboratory Sciences. As an ASCP certified medical technologist, he has worked at Duke University Medical Center since August 1999. William is interested in advancing his technical skills in molecular biology and increasing his knowledge of topics related to public health initiatives and medical research. We are very pleased to have William as part of the laboratory team for the coming year!

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Reported Communicable Diseases, North Carolina, January-September 2002 (by date of report)*

Disease	Year-to-Date (Third Quarter)			3rd Quarter 2002	Comments / Notes
	2002	2001	Mean (97-2001)		
Brucellosis	**1**	-	2	1	
Campylobacter	**496**	365	516	257	
Chlamydia, laboratory reports	**18409**	16657	15757	6336	
Cryptosporidiosis	**28**	23	-	7	Note 1 & 2
Dengue	**3**	1	2	2	
E. coli O157:H7	**36**	36	97	20	Note 3
Ehrlichiosis, Granulocytic	**1**	-	-	1	Note 1 & 2
Ehrlichiosis, Monocytic	**7**	9	-	6	Note 1 & 2
Encephalitis, California group	**12**	2	-	11	Note 1 & 4
Foodborne, C. Perfringens	**1**	-	10	1	
Foodborne, other	**29**	7	31	26	
Foodborne, staphylococcal	**62**	-	20	5	
Gonorrhea	**12028**	12920	13577	4040	
Haemophilus influenzae	**30**	41	31	9	
Hepatitis A	**182**	157	180	54	
Hepatitis B, acute	**175**	161	242	43	
Hepatitis B, chronic	**710**	466	653	233	
Hepatitis C, acute	**22**	16	-	8	Note 1 & 4
HUS-TTP	**2**	1	-	-	Note 1 & 2
HIV/AIDS	**1242**	1222	1215	466	Note 5
Legionellosis	**9**	7	14	4	
Listeriosis	**5**	2	-	2	Note 8
Lyme disease	**101**	33	52	55	
Malaria	**19**	12	28	10	
Meningococcal disease	**29**	59	61	12	
Meningitis, pneumococcal	**34**	38	51	3	
Mumps	**1**	4	9	-	
Q Fever	**2**	-	1	1	
Rabies, animal	**557**	450	485	228	
Rocky Mountain Spotted Fever	**226**	121	104	135	
Salmonellosis	**1042**	980	1280	547	
Shigellosis	**278**	283	345	134	
Strepto. A, invasive	**107**	124	-	18	Note 2
Syphilis, total	**488**	722	1009	156	Note 6
Trichinosis	**1**	-	0	1	
Toxoplasmosis, congenital	**1**	-	-	-	Note 1 & 2
Toxic Shock Syndrome	**3**	4	3	1	
Tuberculosis	**243**	251	294	85	
Tularemia	**1**	1	2	-	
Typhoid, acute	**1**	2	3	1	
Vibrio vulnificus	**2**	4	-	2	Note 7
Vibrio, other	**7**	8	-	3	Note 2
Vanco. Resistant Enterococci	**430**	446	-	118	Note 2
Whooping cough	**36**	56	108	16	

* Preliminary data, as of 9/30/2002. Quarters are defined as 13-week periods. Only reportable diseases reported in 2002 are listed in this table.

Notes: 1. Not reportable in this entire time period; 2. Became reportable 8/1/1998; 3. Became reportable 10/1/1994; 4. Became reportable as such 8/1/1998; previously within other category ("Encephalitis"; and "Hepatitis, non A-non B"); 5. Earliest report with HIV infection or AIDS diagnosis; 6. Primary, secondary and early latent syphilis; 7. Became reportable 7/1/1997;

8. Became reportable 7/2001.

(***Implications of Drought Conditions*** *continued from page 7)*

In summary, drought in the United States does not create an immediate direct threat to public health. However drought creates conditions that can reduce and threaten water supplies with increased concentrations of contaminant compounds; worsen conditions that can result in forest fires and thereby affect air quality; and cause increased contact among humans, animal hosts, and the vectors of anthropogenic zoonotic diseases such as the encephalitic viruses and Lyme Disease. To protect their health, people should conserve water and take precautions outdoors such as using insect repellent, wearing light-colored clothing, avoiding stagnant water, and staying indoors during air quality alerts.

The state has organized a drought program in cooperation with several federal agencies and local municipalities. The North Carolina Drought Monitoring Council is organized to coordinate activities of state agencies in the assessment and the response to drought and to activate the Drought Assessment and Response Plan, a part of the North Carolina Emergency Operations Plan. The host organization is the North Carolina Division of Water Resources. Further information about conservation and restrictions on water use can be found on the Internet at www.ncwater.org/water_supply_planning/drought_monitoring_council or by calling (919) 733-4064.

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Dr. Steve Cline Receives the North Carolina Public Health Association's Reynolds Award

Prepared by Bill Furney, Information and Communication Specialist
Public Health Preparedness and Response

Congratulations to Dr. Steve Cline, chief of the Epidemiology Section, for receiving the N.C. Public Health Association's Reynolds Award in September during the association's Annual Educational Conference in New Bern. Bestowed annually to the person who has contributed the most to public health in North Carolina within the past year, the award recognizes Dr. Cline for successfully and simultaneously coordinating response efforts associated with the events of September 11 and the anthrax crisis in the fall of 2001.

The association cited Dr. Cline for his ability to quickly pull "together a team of state experts to support local public health officials in the impacted areas, coordinate disease investigation, and thwart public hysteria by mounting an aggressive public awareness/media response. Not only did he conduct a textbook epidemiologic investigation showing that North Carolina was not the [anthrax] source, this effort became the framework for creating a state public health policy for responding to bioterrorism. Dr. Cline was recognized on many levels for his actions and many states have borrowed from North Carolina's bioterrorism response plan."

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Employee Recognition: Employee of the Quarter Dr. Jean-Marie Maillard

Prepared by Patsy P. West, Administrative Assistant Epidemiology Section

Dr. Jean-Marie Maillard has received the Epidemiology Section's Employee Recognition Award for the fall quarter of 2002. Dr. Maillard was nominated in the category of "Service Excellence."

Dr. Maillard began his career with the General Communicable Disease Branch, Epidemiology Section, on April 1, 1992 as head of the Office of Epidemiologic Investigation and Surveillance. His vast experience in international medicine as a UNICEF consultant in Myanmar, Burma, his experience as a World Bank Consultant in Madagascar; and the time he spent working as a regional medical officer in Botswana and as district medical officer in Saint Lucia, Eastern Caribbean, gave him in-depth expertise for his new role. As head of the unit, he oversees communicable disease surveillance reporting procedures at the state level. Additionally, he provides consultation to the local health departments, physicians, media and other callers about communicable disease case management in terms of public health control measures and assists in investigation of cases, clusters and outbreaks, including going to various counties for site visits when needed.

Since the tragedy of September 11, 2001, Dr. Maillard is the liaison with the information technology staff on merging and expanding our current communicable disease surveillance system with NEDSS and the HAN technologies. He works with outside groups such as the UNC School of Medicine Emergency Department and the UNC School of Public Health Bioterrorism Preparedness Group on training and surveillance issues related to bioterrorism preparedness. As Unit Head of OEIS, he is currently the lead response individual from the General Communicable Disease Control Branch on outbreak situations that may have terrorist implications. During the anthrax occurrence, Dr. Maillard was the lead physician for the Epidemiology Section, working long, extended hours providing information to state and local medical and non-medical personnel, many times being on-call 24 hours per day.

Dr. Maillard consistently excels in dedication to the responsibilities of his position. His unflagging excellence has earned him recognition by his peers and others he serves, particularly at the local health department level, as a dependable resource for advice and information about communicable disease control issues.

In addition to receiving the Epidemiology Section's Employee Recognition Award for "Service Excellence," Dr. Maillard will be presented with a gift certificate from the Section Management Team.

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